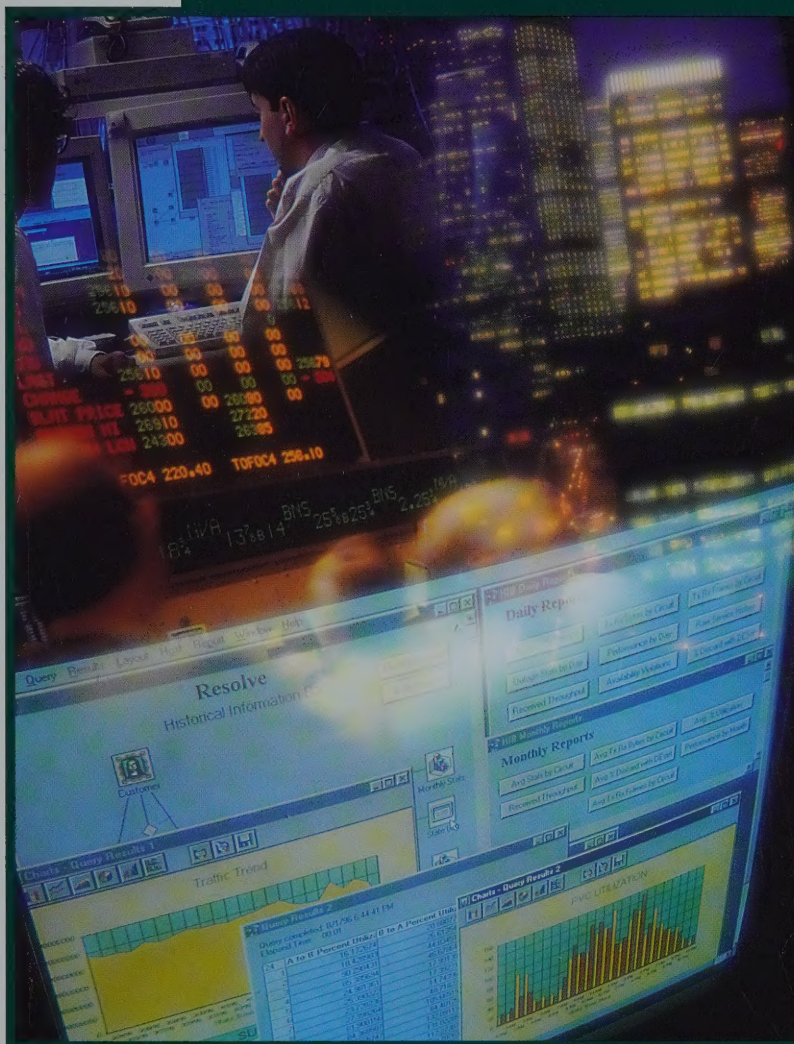




CROSSKEYS

AR55



1996

Annual

Report

We're Poised with

the right products...

and Positioned in

a growing market...

with Partners who

are industry leaders.



## Corporate profile

CrossKeys Systems Corporation, through its software products and services, provides integrated communications systems management to telecommunications customers around the world. CrossKeys combines a commitment to research with extensive experience in the world's most demanding telecommunications markets to deliver highly advanced network and service management solutions. The Company is an affiliate of Newbridge Networks, a partner to Digital Equipment Corporation, and a contributor to the Siemens/Newbridge ATM Alliance. CrossKeys delivers solutions worldwide through offices in North and South America, Hong Kong, France, Germany and the United Kingdom.

## Products and services

**CrossKeys Resolve™** – CrossKeys Resolve is a multiplatform, standards-based portfolio, encompassing the Company's integrated service management products and professional service offerings. The products within the CrossKeys Resolve portfolio facilitate the relationship between service providers and their top customers through the management of commitments and facilities as specified in service level agreements.

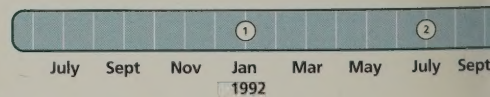
**NetworkWare** – CrossKeys NetworkWare products extend the capabilities of the Newbridge 46020 MainStreet network manager, providing Asynchronous Transfer Mode (ATM), frame relay and Time Division Multiplexing (TDM) reporting and billing capabilities, testing and multimedia note annotation.

**Voice Traffic Management** – CrossKeys voice traffic management products allow service providers to operate voice networks with increased call completions. With CrossKeys voice traffic management products, service providers can reduce capital requirements by maximizing their investment in existing equipment.

**Multivendor Management** – CrossKeys multivendor management products provide for the integrated management and seamless provisioning of heterogeneous equipment under the control of the Newbridge MainStreet network management systems.

CrossKeys commences operations I

CrossKeys incorporated I



- 1 January 1992:** CrossKeys incorporated under Canadian Business Corporations Act
- 2 July 1992:** CrossKeys commences active operations
- 3 April 1993:** CrossKeys ends its first fiscal year with revenues of \$87,000 and bookings of \$175,000
- 4 April 1994:** CrossKeys ends its second fiscal year with revenues of \$2,907,920
- 5 July 1994:** The Company's first product, KeyNotes, is released
- 6 February 1995:** CrossKeys Systems Incorporated established in United States, with headquarters in Herndon, VA



## CrossKeys around the world

○ Corporate head office    ● Regional head offices



**Canada**  
○ Kanata, ON  
Vancouver, BC

**United States**  
● Herndon, VA  
Raleigh, NC  
San Ramon, CA

**United Kingdom**  
● Maidenhead, England  
Newport, Wales

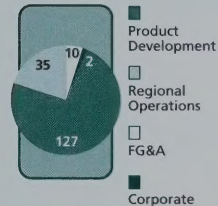
**Germany**  
Frankfurt

**France**  
Paris

**South America**  
Rio de Janeiro, Brazil

**Asia Pacific**  
Hong Kong

## CrossKeys' people



## CrossKeys Systems Corporation chronology

MPR Teltech |

CrossKeys - U.S.A., U.K. |

CrossKeys/Digital |

100+ R&D employees |

Revenue: \$87,000 |

Revenue: \$2,907,920 |

Revenue: \$10,000,000 |

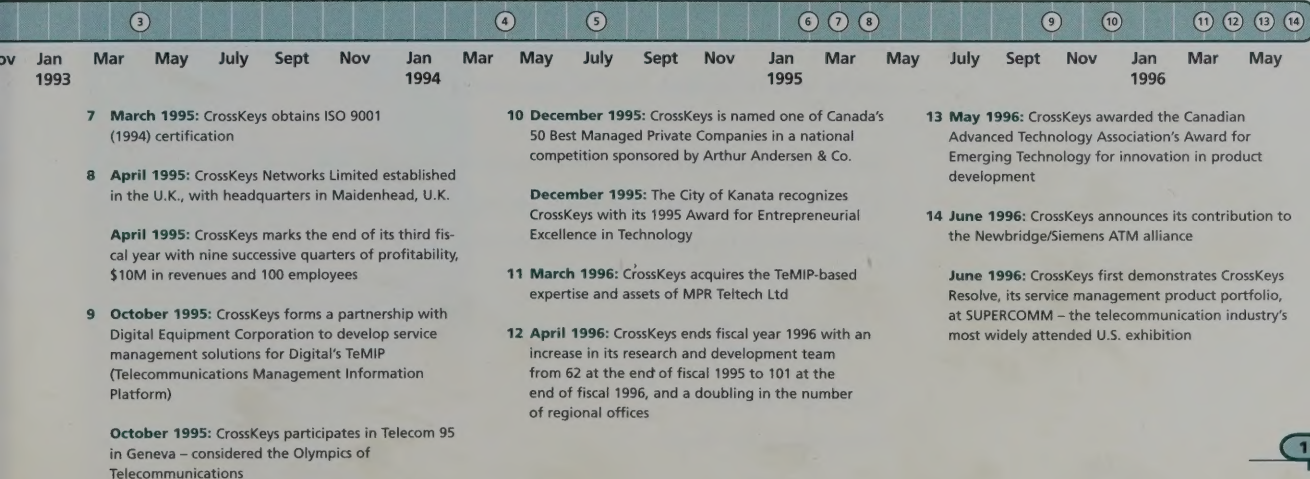
50 Best Companies |

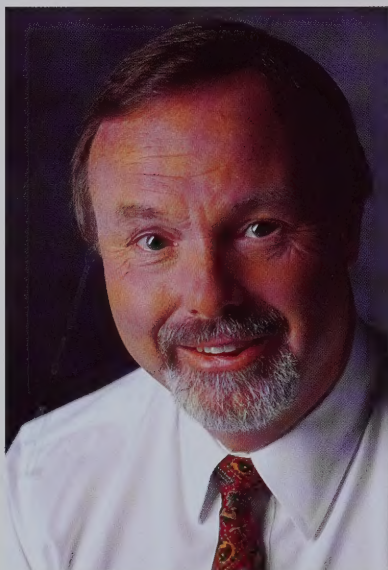
CATA award |

KeyNotes product |

ISO 9001 |

Newbridge, Siemens ATM alliance, CrossKeys Resolve™ |





The advent of deregulation in the world's most competitive telecommunications markets has led to an environment where not even the longest standing service provider/business customer relationships are sacred. As telecommunications moves from a mere support function to strategic asset, business is demanding more services, deployed quickly, and quantified easily. Service providers want a solution they can continue to adapt into the future.

A survey of the 1200 members of the Telecommunications Managers Association in the United Kingdom indicates that "overall quality of services" is by far the most important consideration when deciding upon a telecommunications supplier.

That's where CrossKeys enters the picture – with sophisticated service management software which speeds deployment and tracks quality of service. For a rapidly growing number of telecommunications providers, CrossKeys products are increasingly the key to gaining competitive advantage.

The investments we have made over the past year have positioned us to capture a portion of the market of service providers who require rapid deployment of mission critical applications – a market that is estimated at over \$4.2 billion over the next three years.\*

In fiscal 1996 we strengthened ourselves through the addition of three new directors. From 1990 to 1993, Dr. Gordon Jenkins was Vice President of DuPont Europe, one of the world's leading chemical manufacturers. Dr. Jim Beresford is the Chief of Obstetrics and Gynecology, Newton-Wellesley Hospital, Wellesley, MA and a seasoned business professional. Mr. Rick Schmaltz, CrossKeys Vice President of Regional Operations, brings to the Board an impressive business career – highlighted by senior sales, marketing and management positions with leading information technology organizations such as Sandwell Incorporated's Datap Systems Division, Cov-Can and Hewlett Packard.

Hard work and vision have helped our company grow. We have built the business infrastructure and team necessary to position us for leadership in the telecommunications management software market.

A handwritten signature in black ink, appearing to read "T. Mathews".

Terence H. Mathews  
Chairman of the Board

\* Northern Business Information



Gaining long term positioning takes short-term sacrifice. With some effect on fiscal 1996 performance – revenues were flat and we suffered a small loss – we focused on building the infrastructure needed to deliver success in the future.

We increased our research and development team from 62 at the end of fiscal 1995 to 101 as of April 30, 1996. Reflecting the truly global nature of our industry, we built our presence internationally, opening three offices in the United States as well as offices in France, Hong Kong and Germany. Domestically, we also opened an office in Vancouver. Among the immediate benefits of this global expansion was an increase in the number of customers from 50 a year ago to 110 at the end of fiscal 1996. Importantly, over 40 of these are repeat customers, almost double the previous year. CrossKeys products are now being used in 30 countries, an increase from 20 just a year earlier.

During fiscal 1996, CrossKeys augmented its existing Newbridge channel with a direct sales organization, a worldwide partnership with Digital and an agreement with Siemens to distribute the CrossControl™ for their EWSX switch. In October, CrossKeys announced a relationship with Digital Equipment Corporation to develop service management solutions for Digital's TeMIP (Telecommunications Management Information Platform). Later in the year, CrossKeys announced its critical contribution to the Asynchronous Transfer Mode (ATM) alliance formed between Siemens AG and Newbridge Networks. In partnering with us, Digital and Siemens saw a sophisticated company experienced in dealing with the largest service providers. Newbridge, Digital and Siemens will continue to open the doors to these strategic markets.



CrossKeys must continue to excel in the delivery of products to this very aggressive market.

The March 1996 acquisition of the TeMIP-based assets of MPR Teltech Ltd., one of the BC TELECOM group of companies, gives CrossKeys valuable TeMIP development expertise and demonstrates our company's commitment to our Digital-based business. The investment also significantly strengthens our capabilities in the area of voice network traffic management.

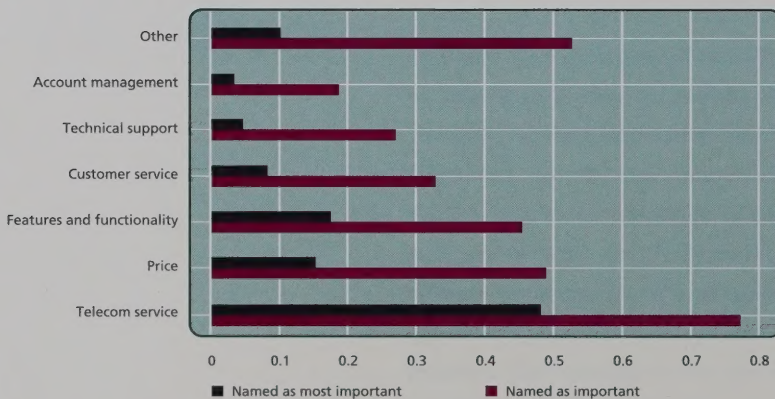
There were important accomplishments on other fronts as well. The Company was named one of Canada's 50 Best Managed Private Companies in a national competition sponsored by Arthur Andersen & Co. It shows that we are on the right track — laying the foundation with best of breed business processes and practices. The Canadian Advanced Technology Association (CATA) also recognized CrossKeys in 1996 with its Award for Emerging Technology for

innovation in product development. In December, the City of Kanata recognized CrossKeys with its 1995 Award for Entrepreneurial Excellence in Technology.

Throughout the fiscal year we worked hard to align our corporate vision to current market needs. Our refined vision is based on the significance of deregulation and service providers' need to rapidly deploy and quantify services in a competitive environment. With 58%

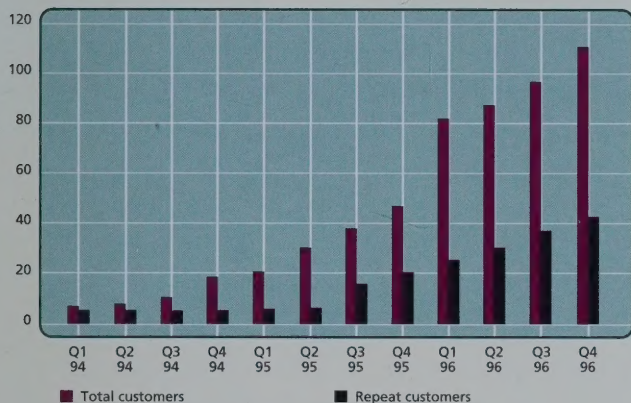
of the industry's \$443B in revenues in 1994 coming from large business customers, service providers need to be differentiated to compete. Their ability to rapidly deploy new, differentiated services is made possible by service management. This vision now guides all aspects of our business — from product development to marketing initiatives.

**Criteria for choosing a telecommunications supplier**





### CrossKeys customer growth



The CrossKeys Resolve product and service portfolio, launched early in fiscal 1997, emerged from our refined vision and has already been extremely well received by the service provider community. The products within the CrossKeys Resolve portfolio facilitate the relationship between service providers and their top customers through the management of commitments and facilities as specified in service level agreements.

Fiscal 1996 was intended to be an investment year. Fiscal 1997 will be the year we begin to reap the benefits of that investment. In fiscal 1997, Siemens will use CrossKeys network management products to manage some of Europe's largest ATM networks. CrossKeys will use its voice traffic management expertise to open even more service provider doors. These and other activities will strengthen the Company's bottom line.

Partnering with the world's leading service providers and information technology providers, CrossKeys has a bright future – a future we should all be proud to be a part of.

John Selwyn

President

### Strategic partners

Vision is a critical element in the telecommunications service providers quest to meet the current and future needs of their business customers. It is an age of high expectation, with business users more sophisticated in their demands and watchful that promises are kept and solutions delivered — at a cost the competition can't beat.

Service providers know that to gain and maintain the loyalty of business customers they have to deliver new services, and deliver them faster and less expensively than ever before. Worldwide trends of deregulation in the telecommunications marketplace provide an unequalled opportunity for CrossKeys to help service providers compete. The race is on to meet the diverse demands of a rapidly expanding market. And now the winning answer is at hand. Strategic partnerships.

STRATEGIC  
PARTNER

### Siemens

"CrossKeys' products are an integral component of the solution Siemens is offering to European service providers. The carriers we are targeting with this alliance know that consolidated management is critical to our meeting their requirements," says Thomas Rambold, President, Broadband Networks division, Siemens Public Communications Networks Group.

CrossKeys believes that through partnerships with industry leaders it can help some of the telecommunications sector's largest players build and maintain a competitive edge. As an essential part of the complete solution, CrossKeys systems management software is well positioned between the service provider and the customer.

The power of strategic partnership is evident as CrossKeys takes its place in the Siemens/Newbridge Alliance. This is truly a tri-party relationship of focused vision and strength. Siemens is a world market leader in network solutions. Newbridge stands at the forefront of special service and digital overlay networks. CrossKeys is an emerging leader in network and service management. Service providers know that the key to the success of an alliance between two equipment

manufacturers is the type of seamless management provided by CrossKeys. Through an enhanced version of its CrossControl product, CrossKeys is providing integral network management functionality to the Alliance and differentiating the solution provided by the Alliance.





A man with a beard, wearing a white shirt, is shown in profile, talking on a black telephone. He is in a control room or office environment. In the foreground, a large CRT monitor displays a video call with two people. Above it, another monitor shows a person in a white lab coat. To the left, a third monitor displays a grid of images. The background is dark with various electronic equipment and glowing lights.

BUSINESS  
USER

## Customers

CrossKeys has an impressive history of developing high quality products for delivery of mission critical applications. Siemens is currently using the CrossKeys CrossControl product to deliver a nationwide ATM service: one of the first customers to use this is the Swiss PTT. As an integral contributor to the Siemens/Newbridge ATM Alliance, CrossKeys' vision of strategic partnership is now a reality.



### Acquisition management

SERVICE  
PROVIDER



### Digital

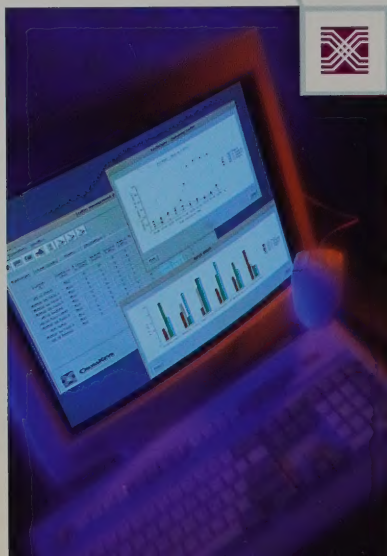
"Digital's strategy to retain its position in the telecommunications market is to deliver – with market-leading partners such as CrossKeys – specialized solutions to its customers," says Jean Claude Saintavit, Vice President of Digital's Worldwide Telecommunications Industry.

In the telecommunications marketplace, all energy is directed towards a single objective—to give carriers the power to migrate to the next generation of services while protecting and leveraging all existing investments. The job is clear—to build and manage an architecture that supports revenue growth through new service creation while allowing carriers to reduce their operating costs and stay competitive. CrossKeys has partnered with information technology front-runner Digital Equipment Corporation to provide service management solutions that exceed this objective.

Working together, the two companies can offer service providers and large corporate network operators a whole new range of services.

To increase its commitment to its Digital-based business and strengthen its position as a leading provider of systems management software, CrossKeys acquired the TeMIP related expertise and assets of MPR Teltech Ltd., one of the BC TELECOM group of companies. This fiscal 1996 acquisition gives CrossKeys the largest complement of TeMIP-based product development staff of any non-Digital owned development partner in the world. MPR Teltech's strength in the voice and traffic management markets complements CrossKeys firm foundation in the data market.

CrossKeys continues to identify new areas of success in the constantly changing telecommunications marketplace. To maintain its position as an industry leader CrossKeys is developing the strategic partnerships and pursuing the acquisitions that support the building and managing of an architecture that provides revenue growth through new service creation.





A photograph showing a person's hands using a computer mouse on a desk. In the background, a glowing neon sign reads 'ART SHOP'. A credit card terminal is also visible on the desk. A small white box with the text 'PUBLIC USER' is overlaid on the image.

PUBLIC  
USER

## Customers

CrossKeys' bold move to acquire MPR Teltech's TeMIP assets is already paying dividends through qualified business opportunities such as the \$2 million Communication Authority of Thailand (CAT) contract. To meet CAT's voice network traffic management needs, CrossKeys is working directly with GTE to help deliver a more efficient and responsive voice network with its TeMIP platform-based exchange performance management software.

### Supporting service providers

To realize success in an industry where regulations and technologies are constantly evolving, service providers must win new business in emerging markets. CrossKeys responds instantly to address service provider needs, which helps them win new business, and helps CrossKeys stay ahead of the competition.

NYNEX, a CrossKeys customer, operates in one of the most dynamic and challenging wireline markets in the world. Three-and-a-half years ago it needed to develop an advanced service delivery platform to maintain its market position. An aggressive approach as well as working with a proven group of technology partners, including CrossKeys, helped NYNEX strengthen customer confidence.

The power of the combined network and service management capabilities of CrossKeys and Newbridge enables NYNEX to provide the responsive attention demanded by advanced service customers.

The responsive service provisioning and customer support that are the hallmarks of NYNEX Enterprise Services depend on the enhancements CrossKeys provides the Newbridge *4602 MainStreet* network manager.

CrossKeys continues to work with NYNEX to deliver state-of-the-art solutions to their complex customer demands. CrossKeys created enhanced versions of its CrossControl products so the entire NYNEX Enterprise Services network could be managed with point and click simplicity. CrossKeys also provides the tools necessary to supply timely service information to the network operations staff.



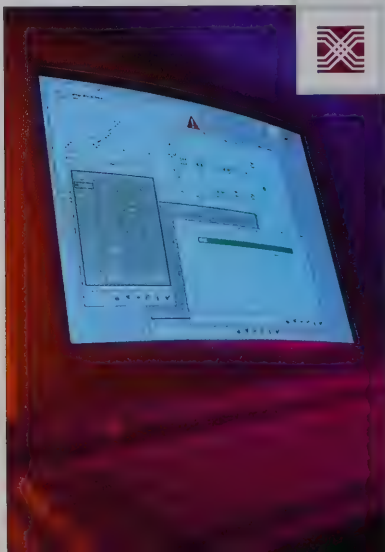
TELECOM  
COMPANY

### NYNEX

"For over three years CrossKeys has been working closely with NYNEX to develop and maintain service management software for major financial customers. Throughout our relationship, CrossKeys has consistently developed solutions that can meet our customers' specific needs," says Joe Lucatorto, Vice President, Business Network Architecture, NYNEX Corporation.



In this highly competitive arena, more businesses are demanding global network services to support their international operations. As carriers hustle to form alliances and put in place seamless services CrossKeys stands ready to take its place in partnership, to once again help deliver the complete end-to-end solution.







ADVANCED  
SERVICE  
CUSTOMERS

## Customers

The sophisticated network and service management capabilities of the CrossKeys product line enables NYNEX to provide the responsive attention demanded by advanced service customers.

### CrossKeys Board of Directors

#### Dr. Terence H. Matthews, OBE •

Chairman of the Board of the Corporation since 1992. Since 1986, Chairman of the Board and Chief Executive Officer of Newbridge Networks Corporation, a world leader in the design and manufacturing of digital networking equipment. Co-founder of Mitel Corporation.

#### James C. Avis •

Currently Executive Vice President, General Counsel and Secretary of Newbridge Networks Corporation. Formerly Vice President, Corporate Finance and Chief Financial Officer of Accugraph Corporation. From May 1984 to May 1986, Vice-President Corporate Development, General Counsel and Secretary of HCR Corporation.

#### Dr. James Beresford

Since 1992, Chief of Obstetrics and Gynecology, Newton-Wellesley Hospital, Wellesley, Massachusetts. From 1975 to 1992, Chief of Obstetrics and Gynecology, Ottawa Civic Hospital. Also a seasoned businessman.

#### Peter D. Charbonneau, Bsc, MBA, CA \*

Since 1993, Executive Vice President and Chief Financial Officer of Newbridge Networks Corporation. From 1987 to 1993, Vice President, Finance, Chief Financial Officer and Treasurer of Newbridge. Prior to 1987, Senior Audit Manager, Deloitte and Touche Chartered Accountants.

#### Joe Culp

President, Culp Communications Associates, Austin, Texas. From 1989 to 1990, Executive Vice President, Communications Transmission Inc. – a \$250 million telecommunications service provider. Prior to 1989, President and CEO of Lightnet – a \$300 million, 5000 mile fiber optic telecommunications carrier.

#### Jim Elder \*\*

Chairman of the Compensation Committee. Currently a member of the Board of Directors of Intivity Inc. and Director of National Capital Freetel. President of Allegro Computer Engineering. With Newbridge Networks Corp. from 1987 to 1991, an initial architect in the development of Newbridge Network Management software products.

#### John Farmer

Secretary of the Board. Currently Assistant Corporate Secretary of Newbridge Networks Corporation. Prior to 1993, Vice President & Secretary of CorpAdmin Consultants Inc. From 1985 to 1990, Assistant Corporate Secretary of Kimburn Technology Corporation. From 1978 to 1985 Corporate Secretary of Mitel Corporation. Fellow of the Institute of Chartered Secretaries and Administrators since 1966.

#### Dr. Gordon Jenkins

From 1990 to 1993, Vice President of DuPont Europe. From 1992 to 1993, also Vice President and General Manager Electronics Material Worldwide and Chairman of DuPont Luxembourg. From 1990 to 1993, Managing Director, Electronics Material Europe and Chairman of DuPont UK and DuPont Italy.

#### Roger Maggs \*

Chairman of the Audit Committee. Since 1993, Vice President of Alcan Aluminum Limited. From 1989 to 1993 President of Alcan Raw Materials and Metal Management. From 1986-1989 Vice President, Personnel of Alcan Aluminum. Prior to 1986, held several positions within Alcan including President Alcan Business Development, Boston; and CEO, Alcan Aluminio del Uruguay, Montevideo.

#### Rick Schmalz

Since 1995, Vice President, Regional Operations of the Corporation. From 1989 to 1994, Director, Sales and Marketing, Sandwell Inc., Datap Systems Division. From 1987 to 1989, Hewlett Packard (Canada) Ltd. From 1985 to 1987, Supervising Engineer at NOVA, an Alberta Corporation.

#### John Selwyn •

Since 1992, President and Chief Executive Officer of the Corporation. From 1989 to 1992, technical architect at Domus Software. From 1986 to 1989, Manager of Software Development at Datacraft in New Zealand.

#### Doug Somers

Currently, Vice President and General Manager, Network and Service Management Systems at Newbridge Networks Corporation. Formerly with Bell Northern Research. A graduate of Queen's University and a member of the Association of Professional Engineers of Ontario.

\* Audit Committee Member

• Employee Compensation Committee Member

### Executive and Regional Managers

#### John Selwyn

President and C.E.O.

#### Steven E. Spooner, C.A.

Vice President, Finance and Administration and C.F.O.

#### Rick Schmalz

Vice President, Regional Operations

#### Ella Mar

Vice President, Product Development

#### Peter Pranschke

Regional Manager  
North and South America and Asia Pacific

#### John Symes

Regional Manager  
Europe, Middle East and Africa

#### Auditors

Deloitte and Touche Chartered Accountants;  
Ottawa, Canada

#### Bankers

Royal Bank of Canada; Ottawa, Canada

#### Legal Counsel

Osler, Hoskin and Harcourt; Ottawa, Canada

### Notice of Annual Meeting of Shareholders October 17, 1996 at the:

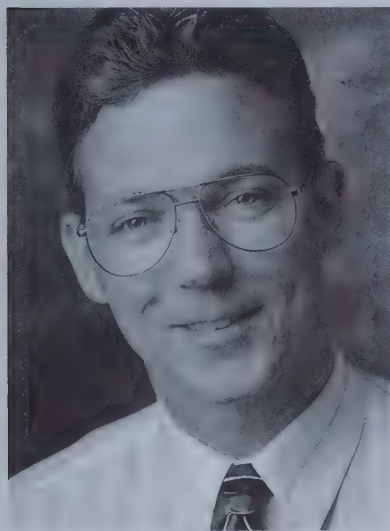
Loch March Golf and Country Club  
1755 Old Carp Road  
Kanata, Ontario, Canada

### For further information, please contact:

Investor Relations,  
CrossKeys Systems Corporation  
350 Terry Fox Drive  
Kanata, Ontario, Canada K2K 2W5  
Tel: 613 591-1600, Fax: 613 599-2310



The telecommunications industry is growing at an unparalleled pace. Within this industry, the market for network management software solutions continues to expand as both established service providers and new entrants seek to differentiate themselves in the face of growing deregulation and heated competition for customers. Software is the key to much of this potential differentiation, enabling either more efficient utilization of existing infrastructure investments or the provision of new and unique services to an informed and demanding customer base.



With the investments made in 1996 and those planned for 1997, CrossKeys is confident in its ability to capitalize on these exciting growth opportunities. Specific investment strategies were implemented in fiscal 1996 to broaden our customer base, deepen our product portfolio, increase our local sales presence in key geographic areas, expand our channels to market, transition to a multi-platform software provider, double our research and development capacity, develop greater project management capabilities and invest in the necessary systems and infrastructure to manage a rapid growth environment. Research and development spending in 1996 in excess of \$6 million reflects the Company's commitment to build our product based revenue streams.

Investments of this magnitude, while positioning the Company well for the long term, have contributed to the doubling of our cost structure in the current year. As a result, the Company posted a net loss of \$1.5 million in fiscal 1996, compared to earnings of \$2.6 million the year before. Revenues rose 1% to \$10.1 million. Importantly, we diversified our customer base, both in number and geographically. Despite these significant investments, the Company closed 1996 with a healthy cash position.

We are confident that our focus in 1996 on building the organization will enable CrossKeys to achieve and sustain significant growth and premium profitability.

### Management's responsibility for financial reporting

Management's confidence in the preparation of financial statements is derived from a system of internal financial controls. These controls are designed to provide assurance that transactions are legitimate, assets are fully accounted for and detailed records of all the Company's financial matters are accurate and consistently maintained. The statements are further supported by the estimates and judgments of management. Elaboration on specific issues is provided in the extensive notes to the financial statements.

The Audit Committee of the Board of Directors has full and unrestricted access to all financial records. It regularly fulfills its mandate to review ongoing financial commitments and operations in order to verify that the Company is in sound financial condition and to safeguard shareholders' equity.

Deloitte and Touche, the Company's auditors, have full and unrestricted access to all financial records and to the Audit Committee to discuss their audit and related findings as to the integrity of the Company's financial reporting and the adequacy of the system of internal controls. Their external audit is conducted in accordance with generally accepted auditing standards in order to obtain reasonable assurance that the financial statements are free of material misstatement.

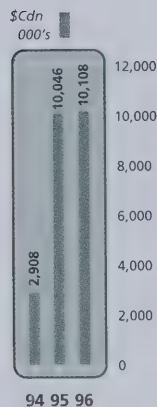
A stylized, handwritten signature in dark ink, appearing to read 'S. Spooner'.

Steven E. Spooner, C.A.  
Vice President, Finance and Administration  
and Chief Financial Officer

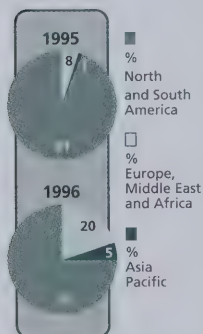
## Management's discussion and analysis

### of financial condition and results of operations

#### Revenue



#### Revenue by geography %



The increase in European and Asia Pacific sales reflects the Company's investment in local sales staff and the ongoing deregulation and market growth in these regions.

#### Results of Operations

Net earnings for the year ended April 30, 1996, declined relative to net earnings for fiscal 1995. Revenues were flat versus the previous year, while operating expenses grew as a percentage of sales. During fiscal 1996, the Company incurred a number of significantly higher costs as it attempted to build a platform of growth for the future. Management undertook to accept weaker short-term financial performance in order to lay a stronger foundation to take advantage of longer-term opportunities in its markets.

The Company reviewed its product strategy, with the result being a clearer focus on core market opportunities in the area of service level performance management. In October 1995 the Company announced a strategic partnership with Digital Equipment Corporation, a key step in our plans to expand our product offerings to operate on multiple platforms. Preliminary customer feedback on our Resolve product demonstrations has been encouraging and we continue to invest heavily in new product development.

The Company made several strategic moves to strengthen its market position. In the fourth quarter, the Company successfully negotiated the purchase of the TeMIP related assets from MPR Teltech Ltd. This acquisition adds both technology and know how in the rapidly growing switched circuit and cellular traffic management market, complementing our existing product portfolio, adding needed custom software development and project management expertise and establishing a Vancouver presence, better able to support Asia Pacific business opportunities.

Additional investments were made to expand our local sales presence and to better serve our growing international customer base. Further, investments were made in both personnel and systems to provide top quality project management, post-sales support and education services to our customers.

To complement our development activities, spending on marketing communications increased significantly in fiscal 1996, as we continued to raise awareness of the Company's capabilities in the marketplace. Finally, the Company invested in administrative staff and supporting infrastructure to service our wider operations and plans for future growth. Year end total headcount grew from 89 in 1995 to 161 in 1996.

Revenues rose 1% in fiscal 1996 to \$10.1 million as increases from the sale of NetworkWare (value added network management application software) and MVNM (software which allows the seamless management of network equipment products from multiple vendors) were largely offset by declines in revenues from custom software development projects and services. This decline in custom business was due to reduced activity at the Company's largest customer. European sales grew to 20% of total 1996 revenues, from only 8% a year earlier, while sales in the Asia Pacific region rose to 5% from 1% of total revenues.

Sales to the Company's largest customer declined to 48% of total sales compared to 65% in fiscal 1995 and this trend of client diversification was accelerating toward the end of the year. The Company's customer list has grown from 50 customers operating in 20 countries in fiscal 1995 to 110 customers in 30 countries in fiscal 1996. Sales order backlog was \$3.2 million at April 1996, compared to \$3.1 million the previous year.

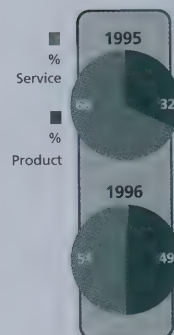
**Research and Development & Cost of Sales**  
Research and development increased in fiscal year 1996, as the Company strengthened its product development efforts. Average R&D staffing levels grew from 50 in 1995 to 82 in 1996. The costs incurred in 1996 reflect spending on new network and service management products and feature enhancements, including the Company's new CrossKeys Resolve product initiative, frame relay and ATM enhancements to existing NetworkWare applications, as well as additional costs related to switched circuit custom product development, furthering technology purchased in the acquisition of the TeMIP based assets of MPR Teltech Ltd.

Recoveries decreased as a percentage of gross expenditures in 1996, due to a decline in investment tax credits. Management believes that recoveries will increase in proportion to gross R&D expenditures in fiscal 1997, given the availability of unused investment tax credits carried forward from the current year.

#### Selling

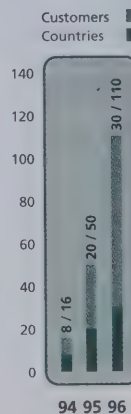
Selling expenses increased in fiscal 1996, both in absolute terms and as a percentage of sales. These increases reflect the Company's continued investment throughout fiscal 1996 in the establishment of new sales offices in France, Germany, Hong Kong and

#### Revenue distribution %



The shift in 1996 toward product revenue reflects a strengthening of the Company's product portfolio as well as lower custom software project volumes, which can vary significantly from one period to another. During fiscal 1996, revenues from products increased to 49% of total revenues from 32% the year before.

#### Customer distribution



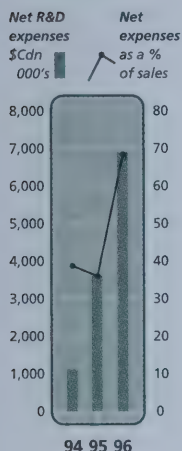
The Company's client base continues to diversify.



## Management's discussion and analysis

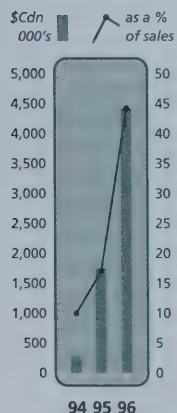
of financial condition and results of operations

### Research and development expenses



The Company substantially increased its commitment to new product development.

### Selling expenses



Selling expenses rose sharply in fiscal 1996 with the opening of six offices in Europe, Asia and the United States.

two additional locations in the United States. Further, the Company increased Sales and Marketing staffing from 15 in fourth quarter fiscal 1995 to 36 by end of fiscal 1996.

### General and Administrative

General and administrative expenses rose as a percentage of revenue and in absolute terms in fiscal 1996. The increased spending reflects the Company's investment in additional staff in Finance, Human Resources, Information Systems, Legal and Facilities, to support and strengthen the organization.

### Interest Income and Expense

Interest income of \$445,000 for fiscal 1996 was ahead of 1995 levels as a result of the Company's increased average cash position. Interest expense of \$191,000 relates to costs associated with the lease financing of capital asset purchases.

### Income Taxes

The composite rates of income tax for the Company vary from the statutory rates primarily as a result of the application of certain deductions related to R&D expenditures in Canada. Future changes in the composite rate of income tax will be primarily due to the relative profitability of operations and the national tax policies in each of the various countries in which the Company operates. Management believes that the composite rate of income tax will remain lower than the statutory rate because of the deductibility of R&D expenditures in Canada as well as other tax planning measures undertaken by the Company.

### Net Earnings

The net loss of \$1.5 million for fiscal 1996 compares to a net income of \$2.6 million in 1995. The reduction in earnings reflects the growth in operating expenses as a percentage of revenues.

### Financial Condition

During fiscal 1996, working capital decreased \$2.6 million, from \$8.1 million to \$5.5 million. At April 30, 1996 the Company had \$6.5 million of cash and cash equivalents, \$1.6 million less than the prior year. The decrease was primarily the result of the net loss of \$1.5 million and investments in capital equipment of \$3.3 million, offset by share proceeds, net of shareholder loans, of \$1.6 million, a net increase in lease financing of \$1.4 million and a reduction in non-cash working capital items of \$0.4 million. The working capital improvements are

primarily due to an increase in accounts payable of \$1.1 million, given higher operating expense run rates, offset in part by reduced levels of deferred revenue, reflecting lower service volumes. Reductions in accounts receivable of \$2.7 million, due to the reduced service component of revenues, were offset by a reduction of \$2.7 million in the due-to-affiliate balance, given the Company's practice in fiscal 1996 of settling all such amounts on a monthly basis.

Existing short term bank credit facilities include \$2.0 million of working capital facilities with Royal Bank of Canada, bearing interest at prime plus one quarter. At April 30, 1996, there were no outstanding borrowings under this line of credit.

During fiscal 1996, the Company acquired the TeMIP related business assets of MPR Teltech Ltd., in exchange for cash and stock in the Company. The assets acquired provide the Company with technology and expertise in switched circuit and wireless traffic management applications.

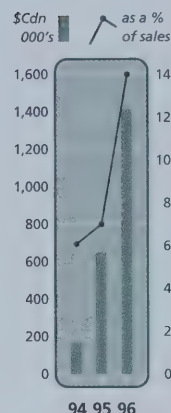
Management anticipates that capital expenditures for fiscal 1997 will be less than those of fiscal 1996, given the substantial investments in R&D capital which occurred in 1996. In addition, the Company may use a portion of its cash resources to extend or enhance its business and diversify its marketing and distribution channels, through acquisitions of or investments in businesses, products or technologies or through the formation of strategic partnerships with other companies.

Management believes that the Company's liquidity in the form of existing cash resources and its credit facilities will prove adequate to meet its operating and capital expenditure requirements at least through the end of fiscal 1997. Management is confident that additional working capital financing can be obtained, as needed, from private equity sources.

### Business Environment

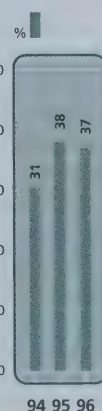
A significant portion of the Company's quarterly sales are derived from products shipped against orders received in the same quarter. Unforeseen delays in product deliveries or closing large sales, introductions of new or enhanced products by the Company or its competitors, seasonal patterns of customer capital expenditures or other conditions affecting the networking industry in particular or the economy generally during

### General and administrative expenses



Investments in administrative staff were made to support planned Company growth.

### Income tax rate



The Company's income tax rate will likely remain lower than the statutory rate.

## Management's discussion and analysis

### of financial condition and results of operations

any fiscal quarter could cause quarterly revenue and, to a greater degree, net earnings, to vary substantially.

While the Company has broadened its customer base substantially in fiscal 1996, revenues remain concentrated in a few large accounts. The loss of a large customer could affect profitability. The Company is addressing this risk in its continued efforts to build relationships with new customers.

Currency fluctuations could become more of a factor in the Company's financial results, as the Company expands its foreign operations. The natural hedge provided by expenses incurred in foreign currencies will be supplemented as appropriate with a formal hedging program to mitigate these risks.

The market for the Company's products is subject to intense competition, changing customer needs, evolving industry standards, frequent new product introduction and a changing regulatory environment. The Company seeks to address these risks by offering a broad portfolio of products and services, through ongoing monitoring of the competitive landscape and by continued investment in product research and development.

#### Outlook

The Company expects the proportion of fiscal 1997 sales derived from products

versus services to be consistent with that experienced in 1996. The Company is also subject to a greater degree of variation in quarterly sales of custom software and services revenues, as an increasing proportion of these sales is expected to be derived from emerging markets outside of North America and Western Europe.

The network systems management marketplace is experiencing rapid growth and change. Competition is expected to remain intense as telephone companies seek to differentiate themselves in an increasingly deregulated marketplace. Accordingly, Management believes that significant expenditures on R&D will be necessary in the foreseeable future, although decreasing over time relative to overall sales volumes.

With the current trends toward deregulation in Europe and the telecommunications infrastructure investments being made in several countries in the Asia Pacific region, Management expects continued sales and support investment and increased business volumes in these regions. While absolute spending levels in selling expenses are expected to rise, these expenses should decline as a percentage of sales. Management also expects spending on general and administrative expenses to continue to grow, yet decline as a percentage of sales.

## Auditor's report

To the Shareholders of CrossKeys Systems Corporation:

We have audited the consolidated balance sheets of CrossKeys Systems Corporation as at April 30, 1996 and 1995 and the consolidated statements of earnings and retained earnings and changes in financial position for the years ended April 30, 1996, 1995 and 1994. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the Company as at April 30, 1996 and 1995 and the results of its operations and the changes in its financial position for the years ended April 30, 1996, 1995 and 1994 in accordance with generally accepted accounting principles.

*Deloitte + Touche*

Chartered Accountants

Ottawa, Canada

June 5, 1996



# Consolidated statements of earnings and retained earnings

years ended April 30, 1996, 1995 and 1994

(Canadian dollars)

	1996	1995	1994
Revenue	\$ 10,108,027 X	\$ 10,045,700	\$ 2,907,920
Expenses			
Research and development and cost of sales (Note 9)	6,885,456	3,568,015	1,118,203
Selling	4,412,887	1,746,929	291,359
General and administrative	1,420,295	666,940	169,960
	<u>12,718,638</u>	<u>5,981,884</u>	<u>1,579,522</u>
Income (loss) from operations	(2,610,611)	4,063,816	1,328,398
Interest income	10,108,027 + 444,724	264,231	5,688
Interest expense - long term debt	<u>(191,276)</u>	<u>(103,588)</u>	<u>(18,066)</u>
Income (loss) before income taxes	(2,357,163)	4,224,459	1,316,020
Income taxes recoverable (provision)	<u>870,705</u>	<u>(1,586,620)</u>	<u>(405,047)</u>
Net income (loss)	(1,486,458)	2,637,839	910,973
Retained earnings, beginning of year	<u>3,611,738</u>	<u>973,899</u>	<u>62,926</u>
Retained earnings, end of year	<u>\$ 2,125,280</u>	<u>\$ 3,611,738</u>	<u>\$ 973,899</u>

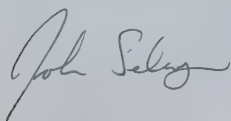
See accompanying Notes to the Consolidated Financial Statements

**Consolidated balance sheets****as at April 30, 1996 and 1995***(Canadian dollars)*

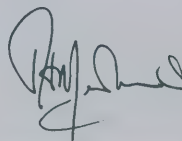
<b>Assets</b>	<b>1996</b>	<b>1995</b>
<b>Current Assets</b>		
Cash and cash equivalents	\$ 6,453,996	\$ 8,097,897
Accounts receivable	1,305,534	4,037,817
Unbilled receivables	466,480	166,951
Refundable investment tax credits	326,447	696,932
Shareholder loans receivable (Note 3)	495,645	166,547
Prepaid expenses and other current assets	<u>120,982</u>	<u>62,402</u>
	9,169,084	13,228,546
 Fixed assets (Note 4)	 3,801,818	 1,792,244
Long term investment tax credits (Note 10)	370,485	-
Goodwill (Note 5)	<u>700,000</u>	<u>-</u>
	<u>\$ 14,041,387</u>	<u>\$ 15,020,790</u>
 <b>Liabilities and Shareholders' Equity</b>		
<b>Current Liabilities</b>		
Accounts payable and accrued liabilities	\$ 1,907,031	\$ 832,612
Due to affiliate	70,351	2,742,897
Taxes payable	-	119,205
Deferred revenue	635,201	1,018,756
Current portion of obligations under capital lease (Note 7)	<u>1,038,299</u>	<u>442,246</u>
	3,650,882	5,155,716
Deferred income taxes (Note 10)	-	870,705
Obligations under capital lease (Note 7)	1,661,345	837,920
Other long term liabilities (Note 5)	<u>125,000</u>	<u>-</u>
	<u>5,437,227</u>	<u>6,864,341</u>
 <b>Shareholders' equity</b>		
Share capital (Note 8)		
Common shares - 17,141,191 outstanding		
(1995 - 16,144,811 outstanding)	6,478,880	4,544,711
Retained earnings	<u>2,125,280</u>	<u>3,611,738</u>
	<u>8,604,160</u>	<u>8,156,449</u>
	<u>\$ 14,041,387</u>	<u>\$ 15,020,790</u>

See accompanying Notes to the Consolidated Financial Statements

Approved by the Board



John Selwyn  
Director



Terence H. Matthews  
Director



# Statements of changes in financial position

years ended April 30, 1996, 1995 and 1994

(Canadian dollars)

	1996	1995	1994
Net inflow (outflow) of cash related to the following activities:			
Operating			
Net income (loss)	\$ (1,486,458)	\$ 2,637,839	\$ 910,973
Items not affecting cash			
Amortization	1,236,656	522,202	141,920
Deferred income taxes	(870,705)	491,338	379,367
	(1,120,507)	3,651,379	1,432,260
Changes in non-cash working capital items (Note 13)	398,287	759,694	(1,116,868)
	(722,220)	4,411,073	315,392
Financing			
Increase in obligations under capital lease	2,075,322	1,010,887	581,826
Repayment of obligations under capital lease	(655,844)	(265,157)	(47,390)
Proceeds on issue of common shares	1,934,169	3,038,491	1,501,887
Increase in shareholder loans receivable	(329,098)	(71,337)	(95,210)
	3,024,549	3,712,884	1,941,113
Investing			
Acquisition (Note 5)	(700,000)	-	-
Purchase of fixed assets, net of investment tax credits	(3,246,230)	(1,535,119)	(776,560)
	(3,946,230)	(1,535,119)	(776,560)
Increase (decrease) in cash and cash equivalents	(1,643,901)	6,588,838	1,479,945
Cash and cash equivalents, beginning of year	8,097,897	1,509,059	29,114
Cash and cash equivalents, end of year	\$ 6,453,996	\$ 8,097,897	\$ 1,509,059

See accompanying Notes to the Consolidated Financial Statements

(Canadian dollars)

**1. Description of business**

The Corporation was incorporated on January 28, 1992 under the Canada Business Corporation Act. The Corporation provides custom network applications and value-added products for sophisticated and specialized telecommunication networks.

**2. Accounting policies**

The financial statements have been prepared in accordance with generally accepted accounting principles and include the following significant accounting policies:

**a) Basis of consolidation**

The Consolidated Financial Statements include the accounts of the Corporation and its two wholly-owned subsidiaries:

CrossKeys Systems Inc. - (United States)

CrossKeys Networks Limited - (United Kingdom)

**b) Cash equivalents**

Cash equivalents consist of investments with terms to maturity of three months or less.

**c) Foreign currency translation**

The Consolidated Financial Statements are prepared using Canadian dollars. All operations whose principal economic activities are undertaken in currencies other than Canadian dollars have been determined to be self-sustaining.

**d) Fixed assets**

Fixed assets acquired by purchase are recorded at cost. Fixed assets acquired by capital lease are recorded at the present value of minimum lease payments. Amortization is calculated on a straight-line basis over the anticipated useful lives of the assets as follows:

Furniture and fixtures	5 years
Computer equipment	4 years
Software	2 years
Leasehold improvements	lease term

**e) Goodwill**

Goodwill represents the excess of the purchase price over the fair value of net assets acquired and is amortized on a straight line basis over the estimated useful life of the goodwill. The future benefit of this asset is reviewed on an ongoing basis. When warranted by events or circumstances that might indicate that recoverability might be impaired, management will evaluate recoverability by use of the undiscounted cash flow method.

**f) Revenue recognition**

Custom development service revenue is recognized on a percentage of completion basis. When payment is received prior to performance of the services, the revenue is deferred until such time as the services are performed. Other service revenue is deferred and recognized over the period the services are provided. Provisions for estimated warranty and project related costs are recorded in the period in which revenue is recognized. Revenue from product sales is recorded on shipment.



## Notes to the consolidated financial statements

years ended April 30, 1996, 1995 and 1994

(Canadian dollars)

### g) Research and development costs

Current research costs are expensed as incurred. Costs of research and development assets, net of related investment tax credits, are capitalized and amortized. Development costs are deferred and amortized when the criteria for deferral under generally accepted accounting principles are met, or otherwise, are expensed as incurred.

### 3. Shareholder loans receivable

During the fiscal year, the Corporation loaned \$573,400 (1995 - \$260,216) to its employees to acquire common shares of the Corporation. The loans bear no interest and are repayable in 26 equal installments over one year. As at April 30, 1996, the shareholder loans receivable amounted to \$495,645 (1995 - \$166,547).

### 4. Fixed assets

	Cost	Accumulated Amortization	1996 Net Book Value	1995
Furniture and fixtures	\$ 623,500	\$ 152,241	\$ 471,259	\$ 508,049
Computer equipment	3,372,112	898,894	2,473,218	910,976
Software	1,413,876	710,532	703,344	302,131
Leasehold improvements	156,875	2,878	153,997	71,088
	<u>\$ 5,566,363</u>	<u>\$ 1,764,545</u>	<u>\$ 3,801,818</u>	<u>\$ 1,792,244</u>

Fixed assets are recorded net of accumulated investment tax credits of \$257,973 (1995 - \$257,973). Fixed assets include \$3,675,821 (1995 - \$1,280,166) of assets under capital lease.

### 5. Acquisition

On March 1, 1996 the Corporation acquired the TeMIP technology based assets and staff of MPR Teltech Ltd., through an acquisition accounted for under the purchase method of accounting. The total consideration for this acquisition, including acquisition-related costs, was \$700,000, of which \$350,000 was paid through the issuance of 175,000 common shares. The balance of the consideration is comprised of \$100,000 of assimilation costs and \$250,000 payable in \$125,000 installments over each of the next two years. As the net identifiable assets acquired were \$nil, the total acquisition price of \$700,000 has been recorded as goodwill and will be amortized on a straight line basis over five years.

Additional consideration may be payable in the event that the technology generates specified revenue levels in periods subsequent to the acquisition. Such consideration, which is payable in cash will be recorded, when determinable, as an additional cost of the purchase.

### 6. Bank indebtedness

During the year ended April 30, 1996 the Corporation secured credit facilities totaling \$2.0 million of which none was drawn as bank indebtedness. The bank indebtedness is repayable on demand and bears interest at Canadian prime plus one quarter. The Corporation's credit facility is collateralized by general security agreements and requires the Corporation to maintain certain financial ratios.

### 7. Obligations under lease

The Corporation entered into various obligations under capital lease with interest rates ranging from 8.5% to 11.7% which mature between April 1997 and November 1999.

Obligations under operating lease expire in April 2006.

# Notes to the consolidated financial statements

years ended April 30, 1996, 1995 and 1994

(Canadian dollars)

Minimum lease payments due in each of the next five fiscal years are as follows:

	Obligations under Capital Lease		Obligations under Operating Lease
	1996	1995	1996
1997	\$ 1,253,434		\$ 1,047,077
1998	1,046,364		1,293,443
1999	659,867		1,608,663
2000	130,237		1,532,586
2001	-		1,532,586
Thereafter	-		7,662,928
	<u>3,089,902</u>		<u>\$14,677,283</u>
Interest portion	(390,258)		
Total	\$ 2,699,644	\$ 1,280,166	
Current portion	(1,038,299)	(442,246)	
	<u>\$ 1,661,345</u>	<u>\$ 837,920</u>	

## 8. Share capital

### Authorized

An unlimited number of common shares

### Issued

	Common Shares	
	Number	Amount
Outstanding, April 30, 1993	4,333,350	\$ 4,333
Sales to employees	3,388,680	500,220
Exercise of options by affiliate	1,666,660	1,667
Private Sale	<u>1,000,000</u>	<u>1,000,000</u>
Outstanding, April 30, 1994	10,388,690	\$ 1,506,220
Sales to employees	422,791	538,489
Sale to affiliate	2,000,000	2,500,000
Sale to affiliate (Note 11)	<u>3,333,330</u>	<u>2</u>
Outstanding, April 30, 1995	16,144,811	\$ 4,544,711
Sales to employees	790,414	1,578,827
Exercise of options	30,966	5,342
Issued for acquisition (Note 5)	<u>175,000</u>	<u>350,000</u>
Outstanding, April 30, 1996	<u>17,141,191</u>	<u>\$ 6,478,880</u>



## Notes to the consolidated financial statements

years ended April 30, 1996, 1995 and 1994

(Canadian dollars)

### Employee stock option plan

The Corporation has established the CrossKeys Systems Corporation Key Employee Stock Option Plan applicable to employees and directors of the Corporation. The options are granted at the Corporation's estimate of the then-current fair market value of the common shares of the Corporation and may generally be exercised in equal portions during the years following the second, third and fourth anniversary of the date of grant, and expire on the fifth anniversary or upon termination of employment.

Activity in the stock option plan is summarized below.

	Options	Option price
Options outstanding, April 30, 1993	1,025,000	\$0.10
Granted	<u>627,500</u>	\$0.10 - \$1.00
Options outstanding, April 30, 1994	1,652,500	\$0.10 - \$1.00
Granted	<u>333,700</u>	\$1.25 - \$1.75
Options outstanding, April 30, 1995	1,986,200	\$0.10 - \$1.75
Granted	411,700	\$1.75 - \$2.00
Exercised	(30,966)	\$0.10 - \$0.25
Canceled	<u>(38,367)</u>	\$0.25 - \$2.00
Options outstanding, April 30, 1996	<u>2,328,567</u>	\$0.10 - \$2.00

### 9. Research and development and cost of sales

The components of research and development and cost of sales are as follows:

	1996	1995	1994
Gross research and development expenditures	\$ 5,713,296	\$ 4,463,015	\$ 1,707,674
Cost of sales and other direct costs of custom development and support	<u>1,542,645</u>	<u>-</u>	<u>-</u>
Gross research and development and cost of sales	7,255,941	4,463,015	1,707,674
Investment tax credits recorded	<u>(370,485)</u>	<u>(895,000)</u>	<u>(589,471)</u>
Net research and development and cost of sales	<u>\$ 6,885,456</u>	<u>\$ 3,568,015</u>	<u>\$ 1,118,203</u>

Cost of sales and other direct costs of custom development and support includes the cost of labor, travel, and other direct costs associated with custom development and support revenue. During the year the Company applied \$nil (1995 - \$134,000; 1994 - \$103,353) to reduce the cost of capital expenditures included in fixed assets.

### 10. Income taxes

As at April 30, 1996, the Corporation has research and development costs of approximately \$2,408,000 which have not been claimed for income tax purposes, and which are available indefinitely to reduce future years' Canadian Federal taxable income. Investment tax credits of approximately \$1,100,000 (1995 - \$194,600) are available to reduce future federal income tax payable, expiring in 2006. Of the available tax credits, \$370,485 have been recognized in the financial statements.

In December of 1995, CrossKeys was voted one of Canada's 50 Best Managed Private Companies by Arthur Andersen & Co.



Also in December, the City of Kanata, Ontario, Canada recognized CrossKeys with its 1995 Award for Entrepreneurial Excellence in Technology.

In May 1996, CrossKeys was presented with the Canadian Advanced Technology Association's (CATA) Award for Emerging Technology.

## ISO 9001

CrossKeys standardized business and technical processes were recognized in March 1995 when the Company was awarded ISO 9001 (1994) certification.



**CROSSKEYS**